

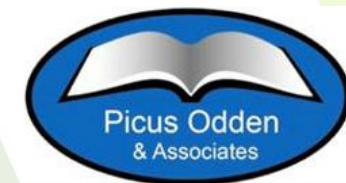


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Presentation to the Stakeholder Advisory Group

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Today's Presentation

- Briefing on reports submitted in September
 - *Analysis of School Finance Equity and Local Wealth Measures in Maryland*
 - Chapter 1: Equity Analysis of Maryland's Bridge to Excellence in Public Schools Funding System
 - Chapter 2: Wealth Measures and Property Tax Issues
 - *Geographic Cost of Education Adjustment for Maryland*
- Study updates

Report:

Analysis of School Finance Equity and Local Wealth Measures in Maryland:

Chapter 1: Equity Analysis of Maryland's Bridge to
Excellence in Public Schools Funding System

Overview of Topics

- Data collection
- Equity analysis (including longitudinal analysis)
 - Horizontal equity
 - Vertical equity
 - Fiscal Neutrality
- Take Home Points

Data Collection

- Equity study
 - Data requested from Maryland State Department of Education
 - Used expenditure and revenue data
 - Student counts for vertical equity analysis
 - Most data from 2002 -2013

Horizontal Equity Analysis

- Horizontal equity measures
 - Coefficient of Variation: measures the distribution of per pupil spending around the mean
 - Range: 0.0 to 1.0, Standard: 0.10, Ideal: 0.0
 - McLoone Index: measures the degree of equity in the bottom half of the spending distribution
 - Range: 0.0 to 1.0, Standard: 0.95, Ideal: 1.0
 - Verstegen: measures the degree of equity in the top half of the spending distribution
 - Range: ≤ 1.0 to $1.0 \geq$, Standard: 1.05, Ideal: 1.0

Vertical Equity Analysis

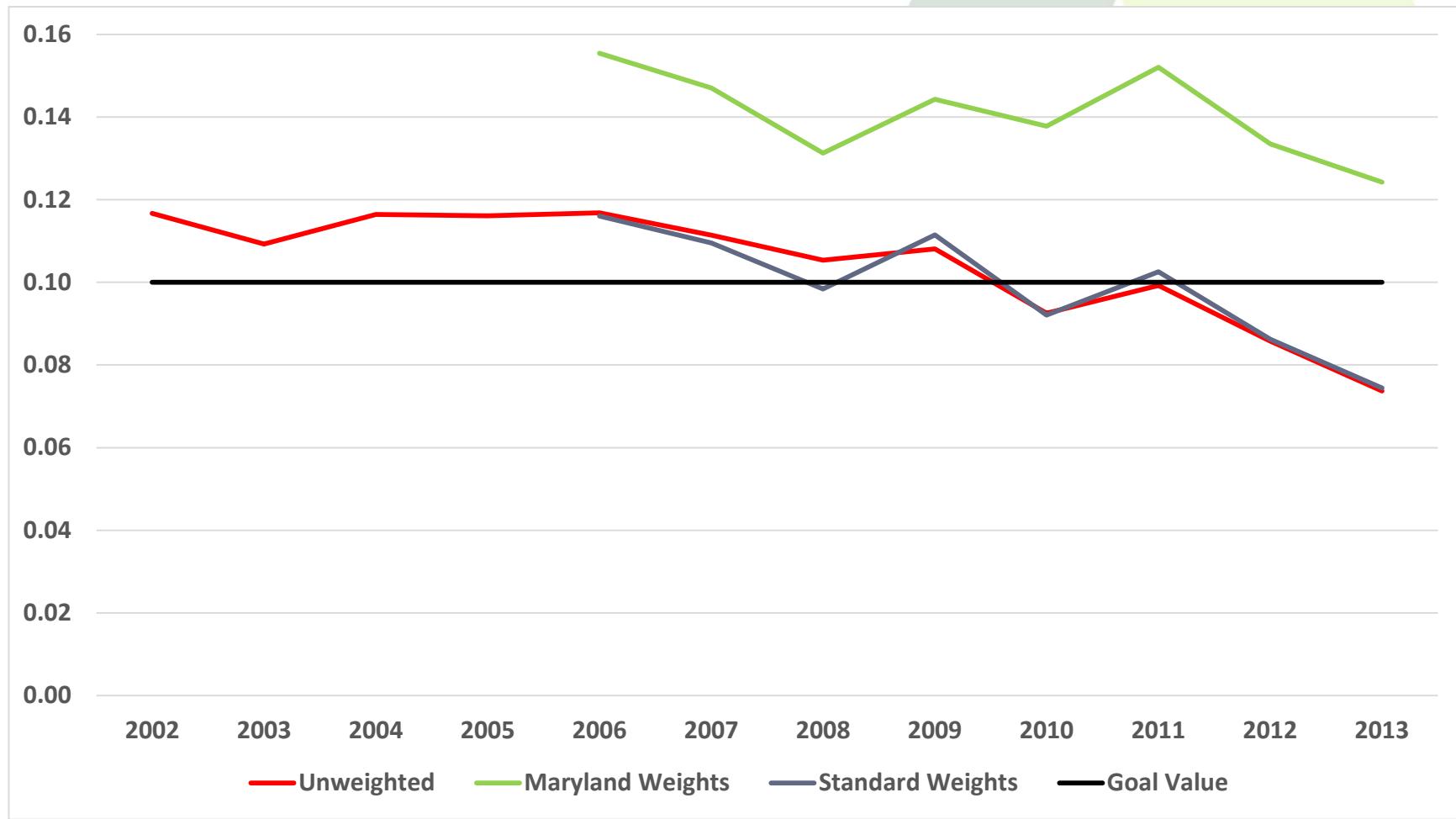
- Vertical equity
 - Assesses equity when student need is taken into consideration (Low income, ELL, special education)
 - Analysis adjusts for student need by using student weights (current Maryland weights and a set of standard weights taken from research)
 - Analyzes both total revenues and expenditures
 - Excludes transportation, food service, capital

Vertical Equity Analysis

Weights Used in Computing Vertical Equity Statistics:

Category	Maryland Weight	Standard Weight
Special Education	0.74	1.00
FARMS	0.97	0.25
ELL	1.00	0.25

Coefficient of Variation Per Pupil Revenues Excluding Federal



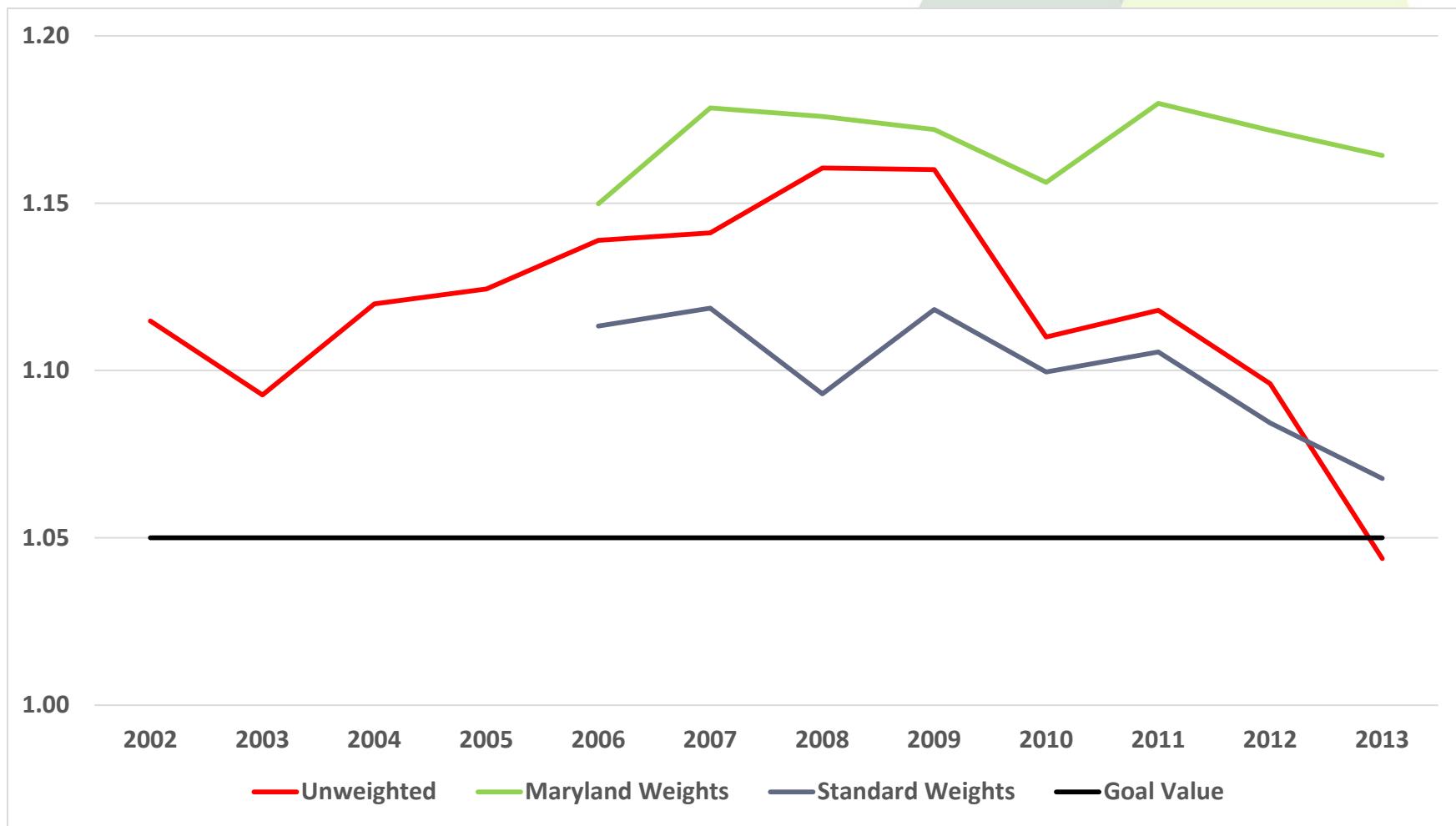
McLoone Index

Per Pupil Revenues Excluding Federal



Verstegen Index

Per Pupil Revenues Excluding Federal

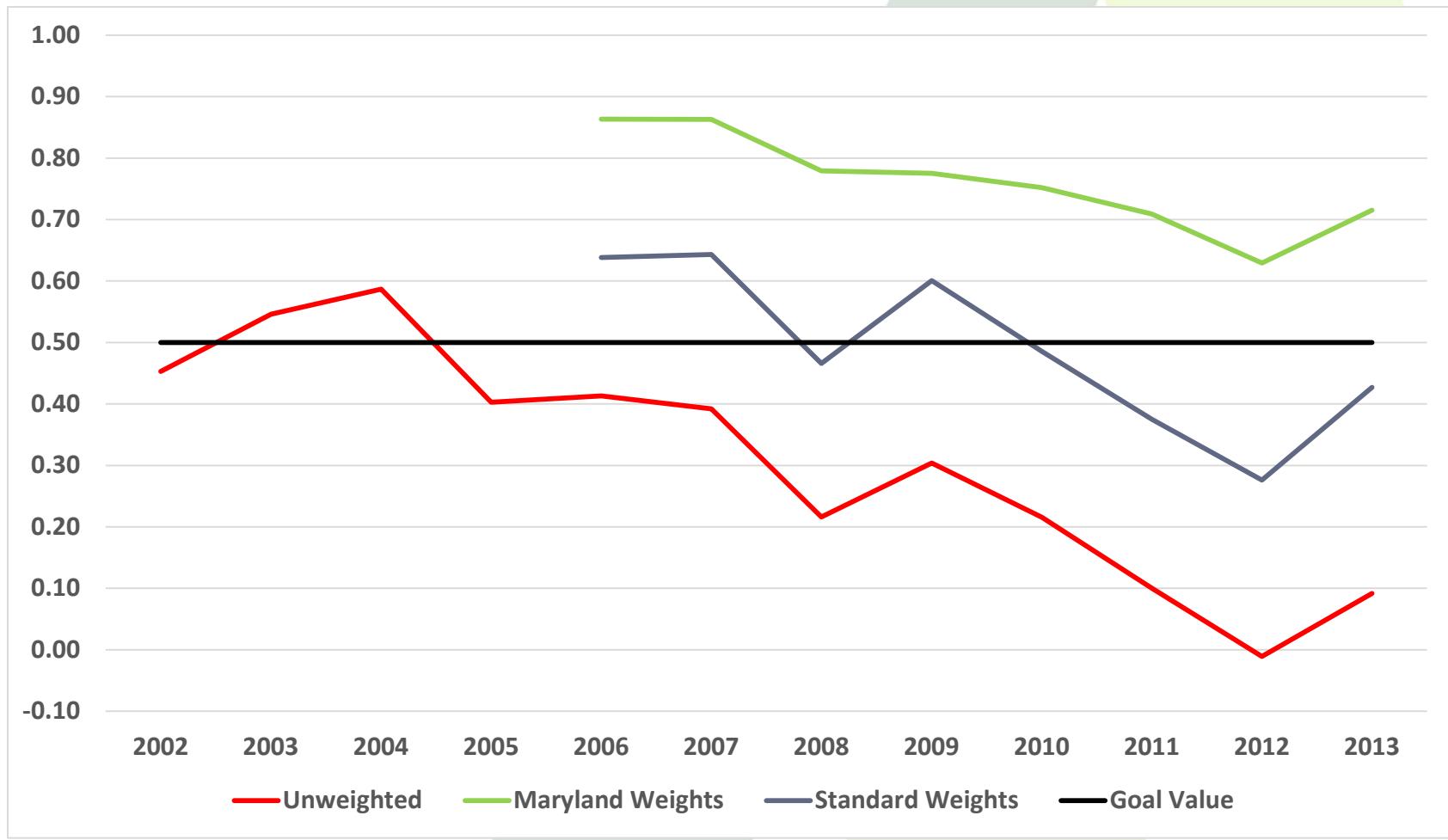


Fiscal Neutrality

- Measures the relationship between local wealth and school funding
 - Correlation: measures the degree to which there is a linear relationship between two variables
 - Range: -1.0 to 1.0, Standard: 0.5 or less, Ideal: 0.0
 - Elasticity: measures the magnitude of change in a variable with a unit change in a related variable
 - Range: ≤ 1.0 to $1.0 \geq$, Standard: 0.1 or less, Ideal: 0.0

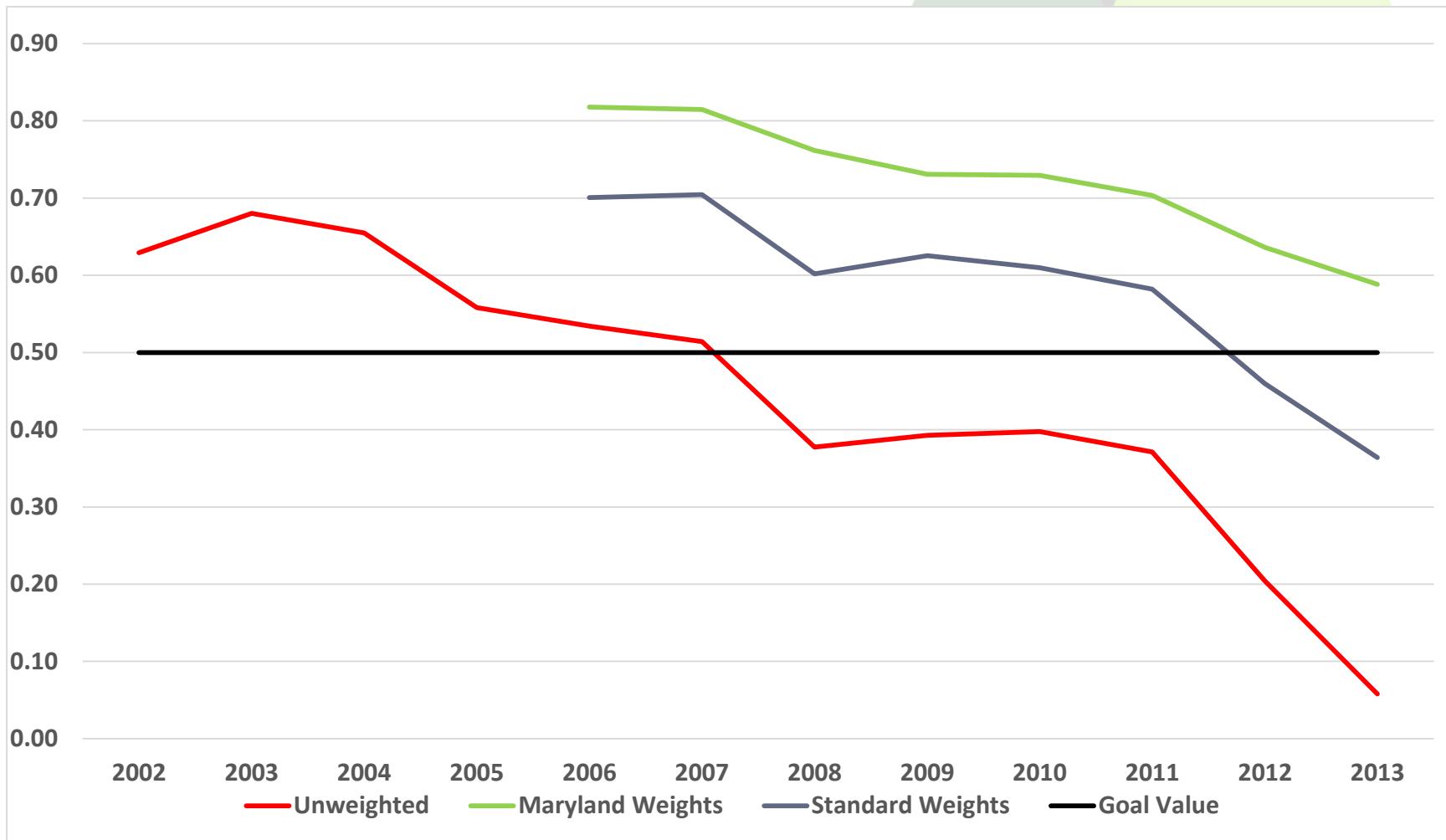
Correlation Coefficient

Per Pupil Revenues Excluding Federal and Total Local Wealth



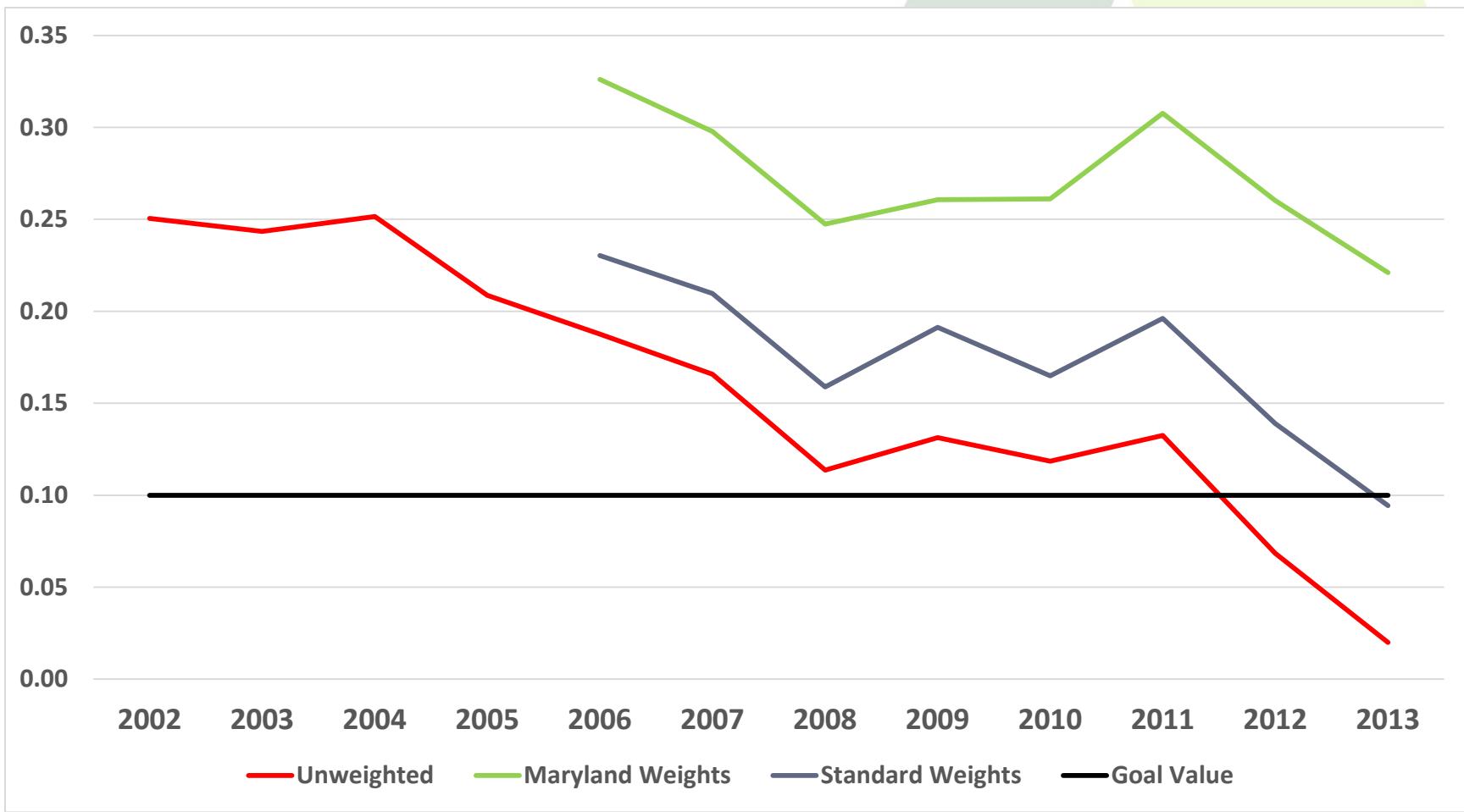
Correlation Coefficient

Per Pupil Revenues Excluding Federal and Per Pupil Assessed Valuation



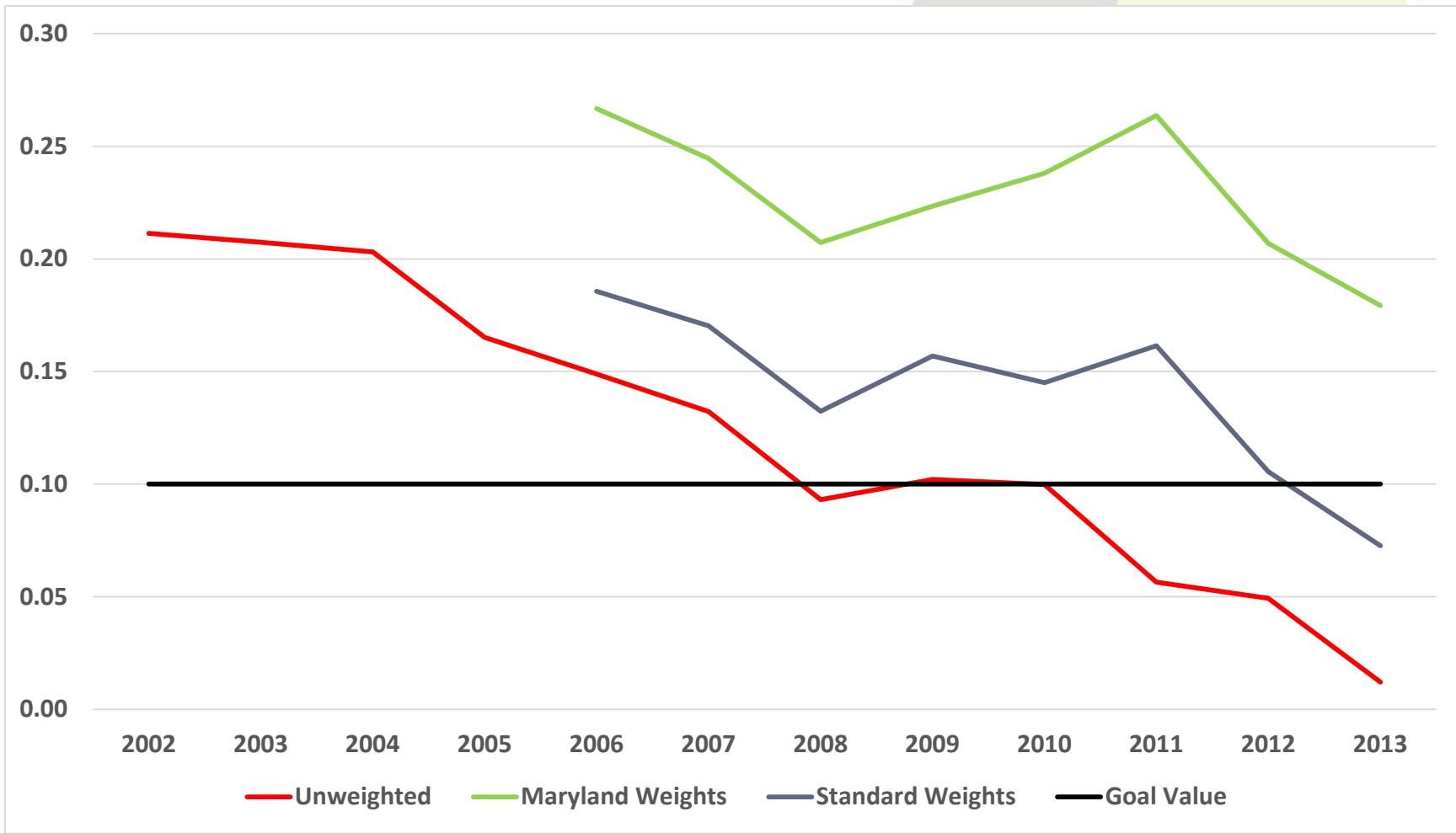
Elasticity

Per Pupil Revenues Excluding Federal and Per Pupil Total Wealth



Elasticity

Per Pupil Revenues Excluding Federal and Per Pupil Assessed Valuation



Take Home Points

- Improvement over time across the board
- Results better for horizontal equity
 - Increased equality
 - When “extra” funding is included: should there be equality?
- Overall structure of system
 - Base funding varies due to variation in local contribution
 - How does base funding relate to adequacy target?
 - Student weights differ from “standard” weights suggested by research

Report:

Analysis of School Finance Equity and Local Wealth Measures in Maryland:

Chapter 2: Wealth Measures and Property Tax Issues

Study of Maryland's Calculation of Local Wealth

- Study examined Maryland's current approach to measuring districts' fiscal capacity, focusing on the following issues:
 - The state's policies for assessing local property value, including timing of assessments, the impact of tax increment financing (TIF), and the fiscal dependence of districts
 - Incorporating income in the measure of fiscal capacity
 - The timing of collecting Net Taxable Income data

Wealth Measures & Property Tax Issues

- Local Property and School Funding
 - *Why fiscal capacity matters*
 - *Financially Dependent vs. Independent districts*
 - *State property tax assessment and reassessment policies*
 - *State policies that impact a district's measurable property wealth*
 - *The impact of Tax Increment Financing on school funding*
- Alternative Measures of Fiscal Capacity
 - *Using income as measure*
 - *Using income as an additive vs. a multiplier*
 - *Other states that use alternative measures*
 - *Timing of Net Taxable Income*
- Policies of Comparison States

Why A District's Fiscal Capacity Matters

- State funding in Maryland is distributed to school districts based on the relative wealth or ability to pay, of a district's county or city
- In Maryland school districts are dependent on the county (or in the case of Baltimore City, the city) where they are located – these are referred to as “dependent districts”

Maryland's Current System for Determining Local Wealth

Maryland employs the following formula to determine a district's relative fiscal capacity:

Total personal property x 50% +

Total real property values x 40% +

100% of public utilities' assessable base +

100% of net taxable income

= Total district fiscal capacity

Property Values and Fiscal Capacity

- Maryland's school funding formula counts district real and personal property wealth as about two-thirds of district fiscal capacity
- State law exempts certain types of property (religious, fraternal, educational organizations or government owned) from local property taxes

Fiscal Capacity in Other States

State	Property	Income	Other
Connecticut	Property Value 90%	Median Income 10%	
Massachusetts	Property Value 50%	Aggregate personal income 50%	
New Jersey	Based on property values and property tax rates 50%	Based on Aggregate income and income tax rates 50%	
New York	Property Value 50%	Adjusted Gross Income 50%	
Rhode Island	Property Value 50%		Percentage of students eligible for F/R L in grades Pre-K - 6 compared to the state average 50%
Tennessee	Property Tax Base 50%		Sales Tax Base 50%

Property Assessments

- Assessment/reassessment policies are very important for school funding purposes
- Annual reassessment of property may be costly, infrequent reassessments may lead to inequities
- Maryland policy requires that property be reassessed every three years

Dependent vs. Independent Districts

- In 2012-13, nearly 90% of school districts in the U.S. had independent taxing authority (U.S. Census)
- Four states (Alaska, Hawaii, Maryland, and North Carolina) contain all dependent school districts
- In 30 states, all of the districts are independent
- The remaining 16 states have a mix of dependent and independent school districts
- In states with dependent districts, like Maryland, districts may have little or no input into local taxing decisions

Tax Increment Financing and Local Wealth

- Recent growth in the use of Tax Increment Financing authorities (TIF) has significantly impacted the tax base and state aids in several districts
- States are in a difficult position with TIFs and the determination of district fiscal capacity
 - At issue is whether to exempt all or part of TIF property value when determining local wealth and state education aid
 - Currently Maryland includes TIF property in district wealth calculations, but districts do not realize local revenue from this wealth

State Policies on TIF and School Funding

- Five states (DE, KS, NE, NY, and UT) require permission from a school district board before a TIF program may be authorized
- Three states (CO, IA, and OH) require that school districts must be consulted or be allowed to review a TIF program before it can be issued
- Only Kentucky and Washington specifically state that TIF programs cannot be used to reduce school district tax revenues

Fiscal Capacity in Comparison States

State	Funding Formula	How is a District's Fiscal Capacity Defined	How is Exempted TIF Property Treated
Delaware	Mixed formula	Assessed valuation of Real Property	TIF property is included in the calculation of a district's fiscal capacity
New Jersey	Foundation formula	Based 50% on property values and property tax rates and 50% on aggregate income and income tax rates	TIF property is included in the calculation of a district's fiscal capacity
New York	Foundation formula	Based 50% on property values and 50% on adjusted gross income	Exempts certain exempted TIF property from the calculation of a district's fiscal capacity
Pennsylvania	Hold harmless	NA	NA
Virginia	Foundation formula	Based 50% on property Tax Base and 50% on income tax base	TIF property is included in the calculation of a district's fiscal capacity
West Virginia	Foundation formula	Property values	TIF property is included in the calculation of a district's fiscal capacity

Ohio's Approach

- Ohio currently exempts 65% of property in a TIF district from the calculation of a district's fiscal capacity
- This means that if a school district has \$10 million in property exempted by a TIF district, it will only have \$3.5 million of that property counted as part of their ability to pay

Using Income as a Measure of Fiscal Capacity

- As shown in this study, Maryland's school funding system has become more fiscally neutral over the years
- One way to move districts to even greater fiscal neutrality is to adjust the way that the school funding system incorporates NTI in determining a district's fiscal capacity

Using Income as a Measure of Fiscal Capacity

- Maryland Currently uses income in its fiscal capacity measure by adding it to property wealth – roughly 1/3 income compared to 2/3 property wealth
- Other states include income to address the issue of low-income/high-wealth districts

Using Income as a Measure of Fiscal Capacity

- When income is used as an additive measure it may benefit high-income/high-property wealth districts or fail to achieve degree of equity desired
- If the state used income as a multiplicative measure instead of an additive measure it would provide a greater benefit to lower-income districts but would negatively impact higher-income districts
- Full impact of new approach cannot be assessed until adequacy study is completed (base amount and weights determined)

Timing of Net Taxable Income Determination

- Maryland currently includes NTI in its measure of fiscal capacity for school funding based on September 1 or November 1 of the prior year, requiring computation of local wealth and state aids twice
- If the State moved to a single November NTI computation (without a hold harmless) it would reduce state revenues for Baltimore and Montgomery counties

Recommendations

- The study team recommends that:
 - The State retain its current 3 year property reassessment cycle
 - Maryland address TIF valuation in a way similar to the Ohio system, this approach allows all three entities – the district, the municipality, and the state – to share both the costs and the potential benefits over time
 - The State consider using the multiplicative approach to combining property and NTI wealth to improve equity for low income districts
 - The State move to a November-only NTI collection
 - Phase-in both of the NTI-related items to ease the transition for impacted counties

Report:

*Geographic Cost of Education Adjustment for
Maryland*

Purpose

- ...evaluate the current methodology used to calculate the Maryland Geographic Cost of Education Index and provide any recommendations to change the methodology
- Department then determines how and whether to alter the methodology
- Depending on the Department's decision, the final report, due June 30, 2016, will report on an update of the current GCEI or the results of a new method for adjusting for geographical cost differences.

Geographical Cost Variation

- Cost: the minimum amount of money necessary to buy the *inputs* required to produce one unit of *output*
 - Difficult to determine for educational outputs
- How costs vary:
 - By the quantity of inputs: staff, instructional materials, technology, other equipment
 - Input prices: how much all of these cost – staff salaries/benefits, price of textbooks, energy prices, etc.

Geographical Cost Variation

- Why costs vary:
 - Uncontrollable district/school characteristics: level of student need, climate, size, local cost of living
 - Controllable characteristics: class sizes, hiring practices, size of administration
 - GCEI should adjust for the former, but not the latter

Current Maryland GCEI

- A weighted index of four components:
 1. An index of uncontrollable wage variation for professional employees (both teaching and non-teaching)
 2. A index of uncontrollable wage variation for non-professional employees
 3. An index of uncontrollable energy costs
 4. A fixed amount for other expenditures (e.g. supplies, materials, equipment, and miscellaneous items)

Professional Cost Index

- Made up of the following factors:
 - Average home value
 - Violent crime rate
 - Commuting time
 - Percent of free & reduced price lunch students
 - Employee characteristics
 - Regional per capita income
 - Year of data indicator

Non-Professional Cost Index

- Made up of the following factors:
 - Average home value
 - Unemployment rate
 - Percent of free & reduced price lunch students
 - Employee characteristics
 - District wealth
 - Year of data indicator

Energy Cost Index

- Energy cost Index:
 - Total district energy expenditures
 - Heating and cooling degree days
 - Enrollment
 - District wealth
 - Energy costs as percent of total costs

Strengths and Weaknesses

- Accounts for multiple cost factors (geographic location, district characteristics, wages, other inputs)
- Does not account for all district cost variations
- Is influenced by costs under control of districts
- May adjust for costs already addressed by funding formula
- Is complex, requiring multiple data sources
- Is treated as a formula add-on
- Truncated to eliminate values below 0

Alternative Approaches

- Three generally accepted approaches to GCEIs:
 1. Cost of living adjustment – similar to CPI, heavily influenced by variation in housing costs
 - Straightforward, but does not account for local amenities, relies on multiple data sources
 2. Comparable wage index (CWI) – calculated by measuring variation in wages of workers similar to teachers
 - Considers worker preferences and local amenities
 - Easy to update (single data source)
 - Not influenced by district decisions
 - Assumes teacher preferences similar to other workers'
 - Does not adjust for working conditions
 - Only considers variation in wage costs

Alternative Approaches

- Generally accepted approaches to GCEIs:
 3. Hedonic wage index – accounts for variation in wage costs due to geographic location and student characteristics
 - Can break out impact of specific cost factors
 - Captures impact of student characteristics
 - May consider worker preferences and local amenities – although confounded by use of actual salary data
 - May be difficult to update due to multiple data sources
 - More complex formulas inappropriate for states with few districts like Maryland

Recommendations

1. Replace current GCEI with one using the CWI (Comparable Wage Index)
2. Include only wage costs, eliminate energy and other costs components
 - May continue to estimate for professional and non-professional wage costs
3. Stop truncating index to allow values less than 0
4. Incorporate as part of base funding formula

Next Steps

- MSDE will issue recommendation on whether to adopt CWI, retain current GCEI, or adopt another method
- Research team will estimate approach recommended by MSDE
- Results will be reported in final GCEI report in June 2016
- New index will be incorporated in adequacy estimate reported in fall 2016

Study Updates

- Evidence-Based Approach
 - EB panels held in June
 - Synthesis of input completed
 - EB model ready for inputs
- Professional Judgment Approach
 - School level panels scheduled for this week
 - Special needs panels scheduled for Oct. 28-29
 - District panel scheduled for Nov. 17-18
 - CFO and state level panels to be held in January

Study Updates

- Successful Schools Approach
 - School selection nearly completed
 - School expenditure data collection tool and instructions have been drafted, will undergo review by district CFOs this week
 - Expenditure data request will likely go out to districts in November
- School size and proxy for economically disadvantaged students studies completed

Study Updates

- Study of increasing and declining enrollment report undergoing revision of Changes in Number of School Buildings section
- Prekindergarten services and funding study nearly completed, reviewing several items
- Impact of concentrations of poverty literature review is being expanded to include additional resources
- Supplemental grants study to begin this winter

Questions?